

**From:** Hauge, Carl  
**Sent:** Monday, February 02, 2004 10:26 AM  
**To:** Guivetchi, Kamyar  
**Subject:** recommendation

Kamyar

Here is a possible re-write for Key Finding 1. e., Jay Lund's recommended additional recommendation, and my re-write of his recommendation.

Carl Hauge, Chief Hydrogeologist, Department of Water Resources

*Here is a modified key finding:*

#### Key Findings

1. e. In many areas, surface water and groundwater are impaired by natural and human-made contaminants, such as arsenic, nitrate, volatile organic chemicals, pharmaceuticals and personal care products, and endocrine disruptors, which degrade environmental resources, threaten human health, and increase water treatment costs.

*Jay Lund wrote this recommendation after the 30 Jan AC meeting for possible addition to the CA water plan update.*

Recommend DWR develop a significant capability to inventory, understand, model and suggest actions to improve the contributions of groundwater and groundwater quality to California's water resources, in coordination with other state and regional agencies and research entities.

*OR, here is my re-write for such a recommendation:*

The state should inventory and evaluate the effect of contaminants, such as arsenic, nitrate, volatile organic chemicals, pharmaceuticals and personal care products, and endocrine disruptors, on surface water and groundwater quality. Evaluation should include the effect of such contaminants on long-term sustainable water resources in California, as well as the cost of treatment for removal of such contaminants.